

# Exhibit 9



US005613690A

**United States Patent** [19]**McShane et al.**[11] **Patent Number:** **5,613,690**[45] **Date of Patent:** **Mar. 25, 1997**[54] **BALANCE AND PROPRIOCEPTION  
TRAINING AND ENHANCEMENT DEVICES**[76] Inventors: **Jerry M. McShane**, 2313 Killarney,  
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*Attorney, Agent, or Firm*—Richard C. Litman[21] Appl. No.: **600,360**[22] Filed: **Feb. 13, 1996**[51] Int. Cl.<sup>6</sup> ..... **A63B 22/16**[52] U.S. Cl. .... **273/449; 428/8; 428/146;  
428/902**[58] **Field of Search** ..... 273/449; 428/8,  
428/9, 146, 901, 902[56] **References Cited****U.S. PATENT DOCUMENTS**

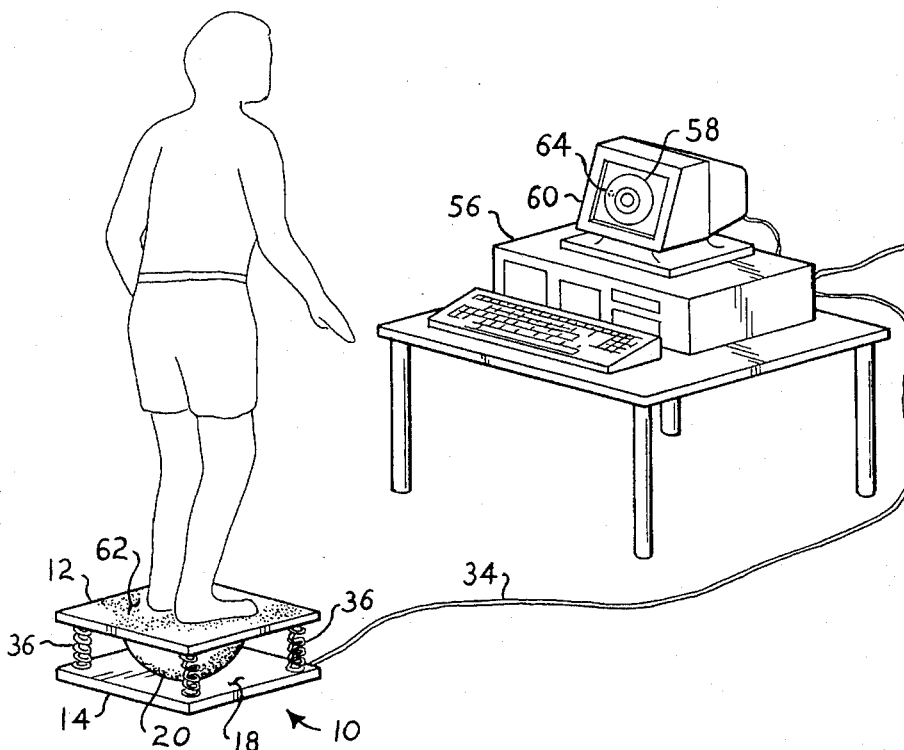
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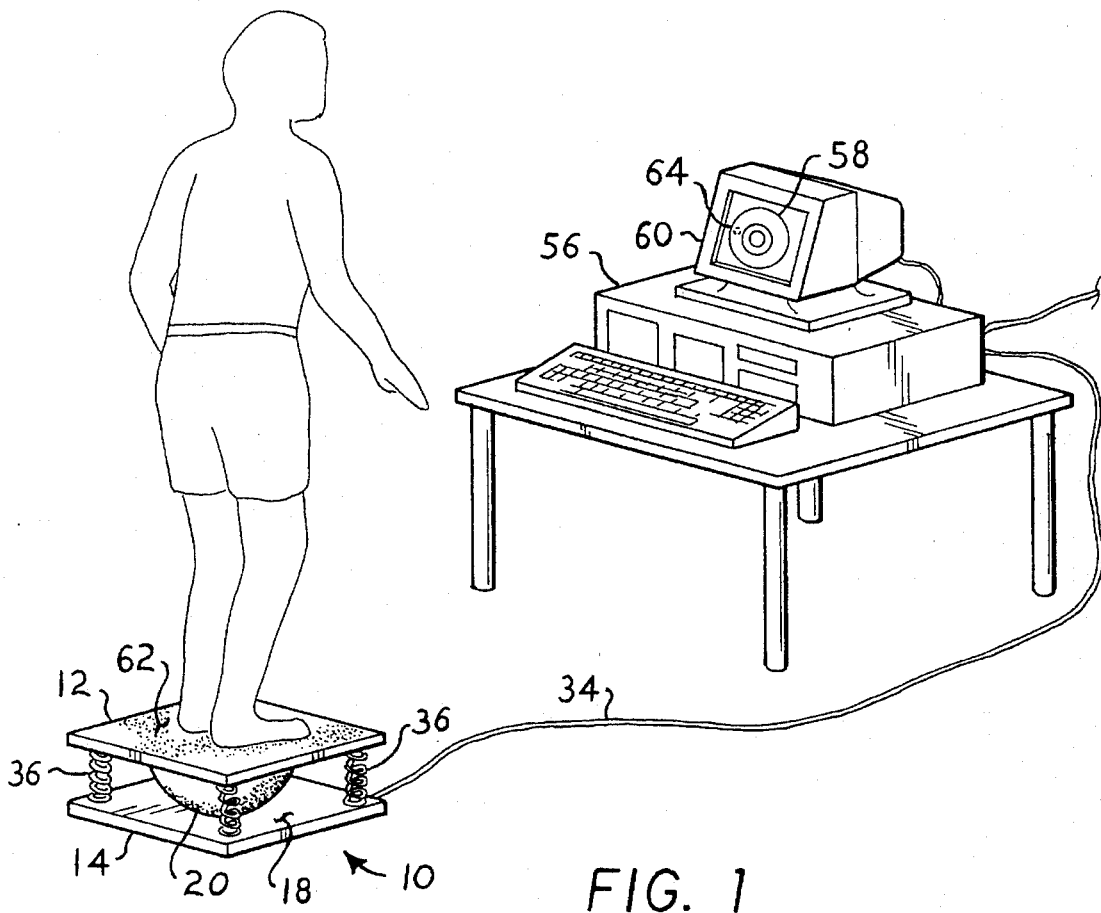
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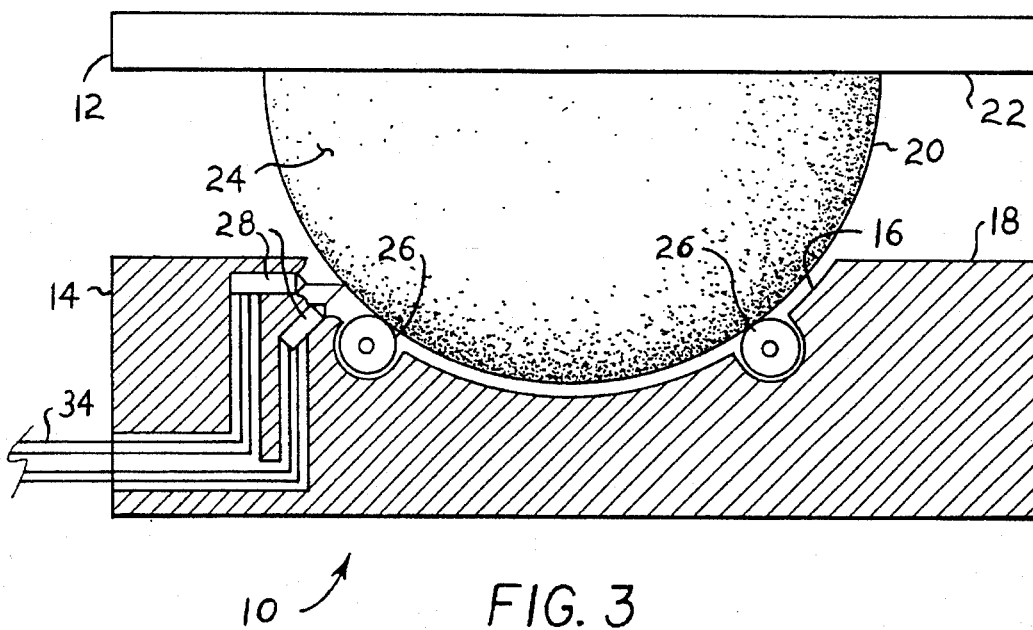
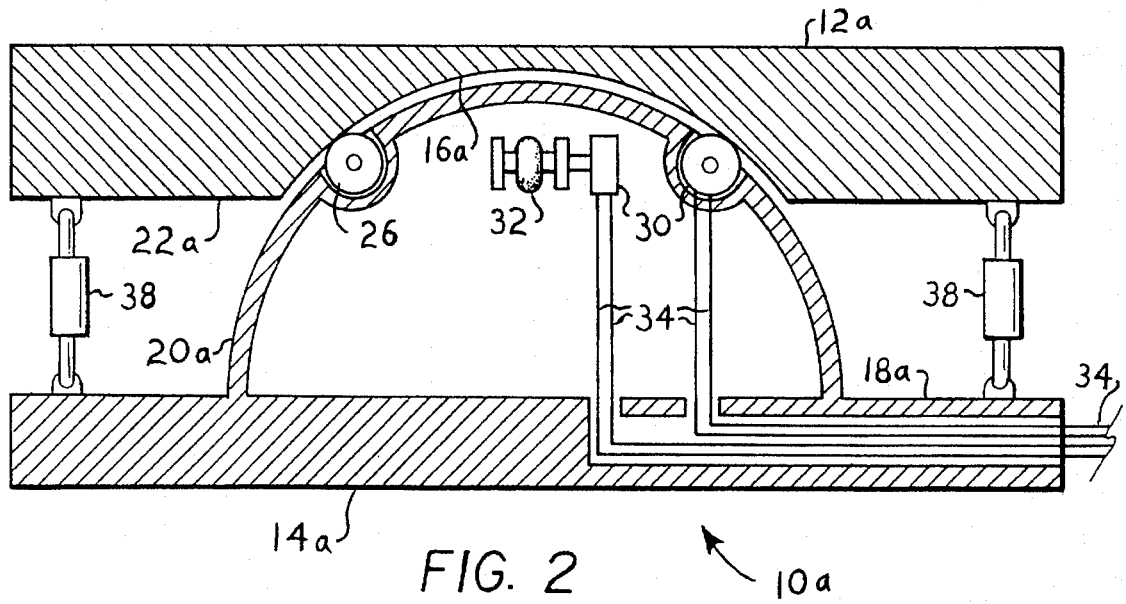
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[57] **ABSTRACT**

Various embodiments of balance and proprioception training and enhancement devices, which serve to improve the balance and proprioceptive abilities of a user thereof. A balance platform is placed atop a base platform, with the balance platform being angularly displaceable in any direction relative to the base platform and having a low friction interface between the base platform and the balance platform. The base platform may have either a spherically shaped convex support or a spherically shaped concave depression, with the balance platform having the complementary configuration to the base platform. The low friction interface between the two curved surfaces may comprise low friction coatings or rollers. Angular displacement sensors (rheostats, optical sensors, etc.) are installed to determine the displacement of the balance platform in any direction relative to the base platform, with the sensors linked to a personal computer or the like and providing a display of the angular displacement for the user, through a suitable program. Resistance and angular displacement limits may be provided between the two platforms, if desired. In one embodiment, the balance platform rests atop a narrow central column, which may be adjustable in height to provide adjustment for the angular limits of the device.

**20 Claims, 3 Drawing Sheets**





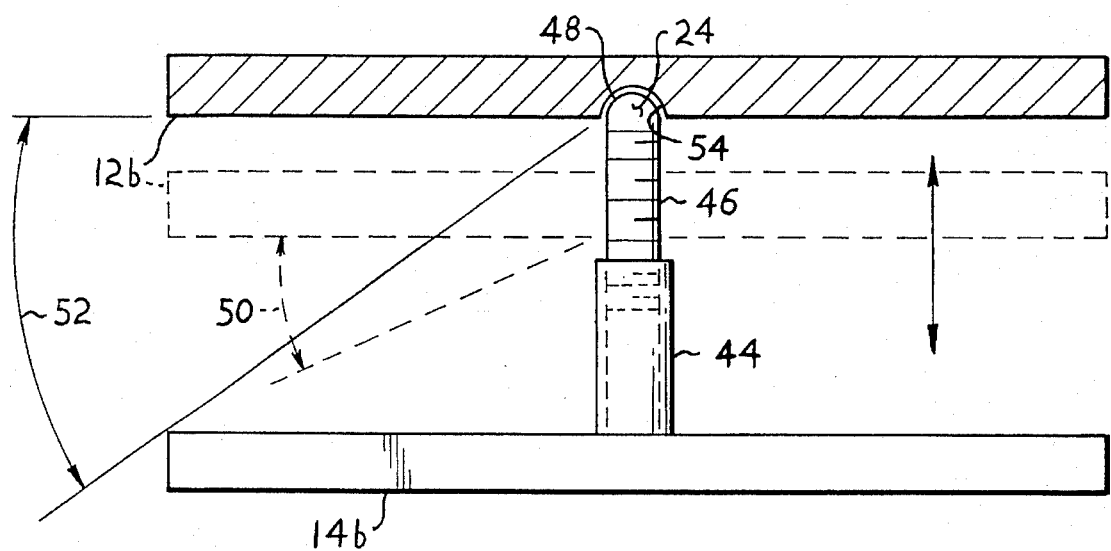


FIG. 4

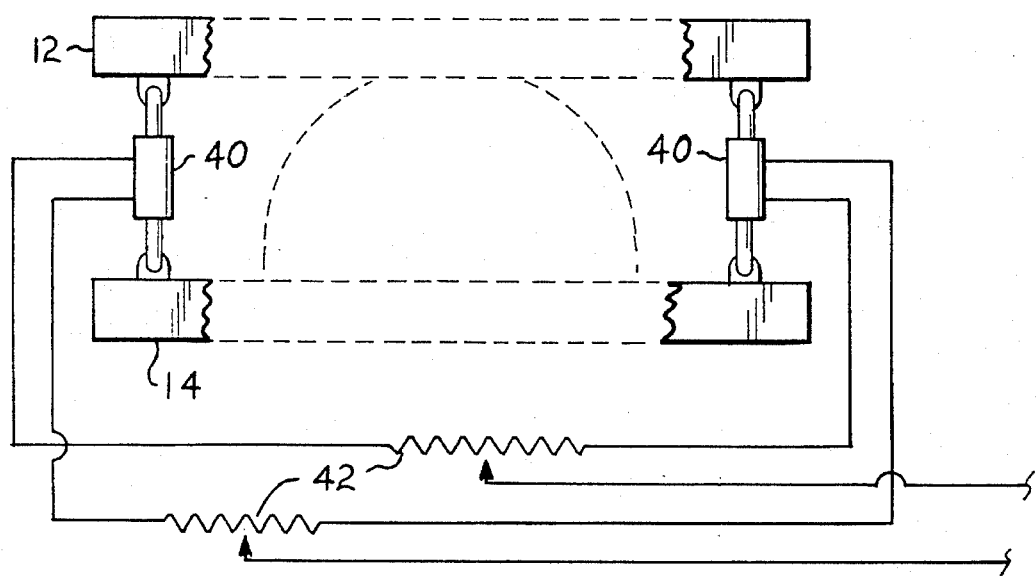


FIG. 5